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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/736848  
Filing Date: December 17, 2003  
Appellant(s): Carl Joseph Kraenzel

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Manu Bansal  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed May 4, 2011 appealing from the Office action mailed November 4, 2010.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

US 7,206,778 B2	BODE	04-2007
US 6,718,366 B2	BECK	04-2004
US 5,815,830	ANTHONY	09-1998
US 7,257,589 B1	HULL	08-2007
60/482,171	SONG	06-2003
US 2001/0049688 A1	FRATKINA	12-2001
US 6,976,018	TENG	12-2005
US 7,185,001	BURDICK	02-2007
US 5,873,056	LIDDY	02-1999

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 29, 30, 35, 36, 38, 41-49, 52-56, 65-74 and 77-81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bode et al (hereinafter Bode), U.S. Patent US 7,206,778 in further view of Beck et al (hereinafter Beck) , U.S. Patent US 6,718,366

B2 and in further view of Anthony, U.S. Patent 5, 815, 830 and Hull et al (hereinafter Hull), U.S. Patent 7,257,589 B1

As per claims 29 and 65, Bode discloses substantial features of the invention such as a system comprising a network, a server connected to a network and hosting an information module (content provider server 100) [Fig. 1], a first interface to a communications link (130) for connecting the server to a remote client (user 105), and a second interface for connecting the server to at least one data source (knowledge containers 201 / 202) [Fig. 2].

However, with regards to the claim, while Bode discloses substantial features of the invention, as above, including broadly disclosing a user interaction with an automated customer relationship management system (CRM) and/or customer service personnel, he does not explicitly disclose the additionally recited features of *"automatically monitoring, via the first interface, a communication between a user associated with the remote client and at least one other individual"*. Nonetheless the said features are disclosed by Beck in a related endeavor.

Beck discloses as his invention a method and apparatus for providing media-independent self-help modules within a multimedia communication-center customer interface [Abstract] [Fig. 1 & 2]. Specifically, Beck discloses the additionally recited features of a automatically monitoring, via the first interface, a communication *between a user associated with the remote client and at least one other individual* (Beck: e.g., "monitoring client activity") [Abstract] (e.g, via 'Interaction Monitor 331) [Fig. 16] (e.g.,

(e.g., for completing 'live transactions' between a customer and an agent / service person / knowledge worker / business partners, for example) [col 13, L43-48] [col 14, L6-18] [col 45, L59 – col 46, L20].

It would thus be obvious to one of ordinary skill in the art at the time of the invention to combine and/or modify Bode's invention with the above said additional recited features, as disclosed by Beck, for the motivation of providing a media-independent self-help wizard that is accessible and executable from within a customer-interfacing WEB-form or customer-interfacing window that is programmable according to enterprise rules and objectives [Beck: col 5, L28-50].

Further with regards to the claims, while the combination of Bode and Beck discloses substantial features of the invention, as above, including monitoring a communication between a user and at least one other human individual and providing documents relevant to the dialog, the combination does not explicitly disclose the additional recited features of automatically determining one or more topic words associated with the communication and automatically searching at least one data source for the one or more topic words appearing in the communication to generate search results for information relevant to the context or the one or more key topics of the communication. Nonetheless the said features are expressly disclosed by Anthony in a related endeavor.

Anthony discloses as his invention automatic generation of hypertext links to multimedia topic objects. Topic objects are stored with textual data containing references to other topic objects [Abstract] [Figs. 2-5]. Specifically, Anthony discloses the additionally recited features of the method further comprising automatically determining one or more topic words associated with the communication and automatically searching at least one data source for the one or more topic words appearing in the communication to generate search results for information relevant to the context or the one or more key topics of the communication (Anthony: e.g., "a data portion, such as text on a particular topic, is displayed to the user to read and digest, and the invention compares the text to references, such as 'topic names' for text, pictures, video and sound, for other data portions containing information on other topics. Upon display of the text to the user, the invention 'indicates' that other topic names have been found 'within the topic text being displayed and read by the user', and that an association has been created between the text being read and the other topics.") [col 3, L2-11] (e.g., cross-referencing / search-string comparison of text to provide links between data elements, such as words or phrases and data portions, such as passages of text, and other data portions") [col 3, L16-29] (e.g., "automatically searching for the occurrence of topic names in the body of text of a first page of a first topic, and looking for a 'matching' topic name") [col 4, L53 – col 5, L18] (e.g, exemplary embodiment: "Topic being viewed by user: Planet / Text for topic planet" ) [col 5, L65 – col 6, L37 & L52-61] .

It would thus be obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Bode and Beck, with the above said additional recited features, as disclosed by Anthony, for the motivation of providing a method of arranging and retrieving data in a computer which does not require the authoring process of prior art, providing a method of cross-referencing data in a computer which does not require an author to identify code links within the data, as well as an effective method of searching data items within a system operating the invention [Anthony: col 2, L23-30].

Additionally, while the combination of Bode, Beck and Anthony discloses substantial features of the invention, as above, the combination does not explicitly disclose the additional recited features of automatically determining '*from the monitored communication, and in real-time*', one or more topic words associated with the communication and automatically searching at least one data source '*in real-time during the communication*' for the one or more topic words appearing in the '*monitored communication*' to generate search results for documents relevant to the context or the one or more key topics of the communication". Nonetheless the said features are disclosed by Hull in a related endeavor.

Hull discloses as his invention techniques for providing relevant information to a user based on information or documents accessed and/or viewed by the user, and wherein the 'relevant information / document' is provided automatically to the user without requiring user input [Hull: Abstract] [Figs. 1 & 3]. As part of his invention, Hull



teaches that there are several types of 'documents' that may be accessed or viewed by a user (i.e., multimedia documents, spreadsheets, *email documents*, text documents, images / graphic files, audio files, video files, or other types of documents and combinations thereof) [col 5, L16-26]. Hull also notes or teaches that while there are several tools (e.g., search engines, etc.) available which help the user in finding 'relevant information / documents ', each of these tools requires manual input from the user [col 2, L23-31]. In particular, Hull discloses the additional recited features of automatically determining '*from the monitored communication, and in real-time*', one or more topic words associated with the communication and automatically searching at least one data source '*in real-time during the communication*' for the one or more topic words appearing in the '*monitored communication*' to generate search results for documents relevant to the context or the one or more key topics of the communication" (Hull: e.g., server system 112 is configured to monitor information or documents accessed / viewed by the users, and based upon the document(s) viewed /accessed by the users, selects information that is likely to be relevant to the users from selection base information provided to or made accessible to server system 112) [col 6, L39-55] (e.g., 'information' selected and output to the user may be of various types including electronic text information, news information, advertising information, public information, etc.) [col 4, L16-35] [also col 3, L22-44] [Fig. 1].

It would thus be obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Bode, Beck and Anthony, with the above said additional recited features, as disclosed by Hull, for the motivation of providing providing

relevant documents or information to a user based upon information or documents {such as email documents} accessed by the user, and providing the relevant documents or information without requiring specific user input) [col 2, L48-54].

As per claim 30, Bode discloses the system of claim 29, further comprising outputting the search results to the remote client (Result Ranking Engine 415) [Figs. 4 & 5].

As per claim 35, Bode discloses the system of claim 29, wherein the remote client comprises at least one of a personal computer, personal digital assistant, or a wireless terminal device (PC or PDA) [col 25, L35-42].

As per claim 36, Bode discloses the system of claim 1, wherein the at least one data source comprises at least one database (content base 115) [col 24, L10-13] or knowledge management (KM) repository (Knowledge Corpus 425) [Fig. 4].

As per claim 38, Bode discloses the system of claim 1, wherein the information module comprises an Internet web site (e.g. website) [{0178} of Pat. Application 09/798964, incorporated by reference] [col 3, L42-64] or software application (i.e., software) [col 24, L10-13] (e.g., CRM application) [col 1, L61].

As per claims 41 and 66, Bode discloses the system of claim 29, wherein the monitoring step further comprises receiving the communication as input in real time (i.e., real-time timer) [col 10, L45-55].

As per claims 42 and 67, Bode discloses the system of claim 29, wherein the communication comprises at least one text message (text communication 201) [Fig. 3].

As per claims 43 and 68, Bode discloses the system of claim 42, wherein the at least one text message comprises an electronic mail message (email communication 201) [Fig. 3].

As per claims 44 and 69, Bode discloses the system of claim 42, wherein the at least one text message comprises a plurality of text messages comprising a web chat ("dialogs" on the web) [Figs. 11-13, 15-17, 19 and 21] & {0178} of Pat. Application 09/798964, incorporated by reference] [col 3, L42-64].

As per claims 45 and 70, Bode discloses the system of claim 29, wherein the communication comprises a voice communication (e.g. telephone call) [col 1, L36].

As per claim 46 and 71, Bode discloses the system of claim 45, wherein the voice communication comprises at least one of a telephone conference, or live conversation

(e.g., Internet based-telephone videoconferencing) [col 5, L29-35].

As per claims 47 and 72, Bode discloses the system of claim 45, wherein the monitoring module receives the voice communication as input in real time and converts it to text [(Abstract) {0015} (IVR / text to speech system) {0184} of Pat. Application 09/798964, incorporated by reference] [col 3, L42-64].

As per claims 48 and 73, Bode discloses the system of claim 29, wherein determining the one or more topic words comprises determining the one or more likely active topics by filtering one or more topic words appearing in the communication using a weighted averaging algorithm (e.g., term-extraction algorithm with weighted tags 202) [Fig. 12] [col 2, L47-49].

As per claims 49 and 74, Bode discloses the system of claim 48, wherein the topic filter module ("topic spotter") [col 6, L39] applies the weighted averaging algorithm to the communication at a predetermined frequency (e.g., term-extraction algorithm with weighted tags 202) [Fig. 12] [col 2, L47-49].

As per claims 52 and 77, Bode discloses the system of claim 29, wherein providing search results to said user comprises hypertext links to the search results, so that the user associated with the remote client may select the hypertext links to access the

search results (email response including hyperlinks) [col 6, L60].

As per claims 53 and 78, Bode discloses the system of claim 29, wherein the information module further comprises a customization module for enabling a user associated with the remote client to specify one or more parameters (search strategy 910 / preferences) [col 19, L35-65] [Fig. 9].

As per claims 54 and 79, Bode discloses the system of claim 53, wherein the user may specify the types of communication to be monitored (e.g, email, Internet based-telephone videoconferencing, text message) [col 5, L29-35].

As per claims 55 and 80, Bode discloses the system of claim 53, wherein the user may specify the at least one data source to be searched [{0179} of Pat. Application 09/798964, incorporated by reference] [col 3, L42-64].

As per claims 56 and 81, Bode discloses the system of claim 53, further comprising enabling the user to specify the format of the search results [Figs. 11-13, 15-17, 19 and 21] & {0178} of Pat. Application 09/798964, incorporated by reference] [col 3, L42-64].

Claims 89-92 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bode et al (hereinafter Bode), U.S. Patent US 7,206,778 in further view of Beck et al (hereinafter Beck), U.S. Patent US 6,718,366 B2 and in further view of Anthony, U.S. Patent 5, 815, 830 and Hull et al (hereinafter Hull), U.S. Patent 7,257,589 B1 and Song et al (hereinafter Song), Provisional Patent Application 60/482,171.

As per claims 89 and 91, while the combination of Bode, Beck, Anthony and Hull discloses substantial features of the invention, as above for claim 29, the combination does not expressly disclose the additional recited feature of the method "wherein the one or more topic words associated with the monitored communication define a context or one or more key topics of the communication". Nonetheless the said features are disclosed by Song in a related endeavor.

Song discloses as his invention a Universal Knowledge Information and Storage Management system and method. The invention provides a system for storing information, including a plurality of sources of information, at least one receiver of information from the plurality of sources, a universal data store and an interface coupling the receiver and the universal data store [Song: pg. 1, L1-3 & pg. 3, L19-29]. As part of his invention, Song discloses a COTA Portal and Agent, which functions together to form a completely new and extremely productive user interface, and helps users to have more immediate access to their information (Song: COTA Portal and Agent) [pg. 133, Par. 2 & 3]. Specifically, Song discloses the additional recited feature of the method "wherein the one or more topic words associated with the *monitored*

*communication* define a context or one or more key topics of the communication (Song: e.g., email communication from 'GM Purchasing Agent' to 'Bill') [pg. 82] (e.g., "an email from a GM Purchasing Agent requesting a proposal of 'Widgets' would alert COTA Agent in the following ways: 1) the sender is a client of the receiver; 2) a 'Key Word search' of the title and text indicates that the content refers to '*Widgets and Proposals*'; 3) a cross reference of the receiver's COTA File Folder and Document Titles reveals an exact Folder Title 'match': *Clients-GM-Widget Project-Proposals*; 4) a secondary scan of the actual document's body content reveals a close match between the incoming document and other documents in the receiver's *GM Widget Projects – Proposals* folder...6) before the user is done reading the first sentence of the email, COTA Agent offers several optional storage locations of the users consideration.") [pg. 143, Par. 7].

It would thus be obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Bode, Beck and Anthony, with the above said additional recited feature, as disclosed by Song, for the motivation of providing a method and system of a universal store to increase personal and professional productivity and quality of life [Song: pg.3, L14-19].

As per claims 90 and 92, while the combination of Bode, Beck, Anthony and Hull discloses substantial features of the invention, including automatically providing the search results to said user (e.g., search results returned) [Abstract], as above for claim 29, the combination does not expressly disclose the additional recited feature of the method further comprising "automatically providing search results to said user *in real-*

*time* during the communication. Nonetheless the said features are disclosed by Song in a related endeavor.

Song discloses as his invention a Universal Knowledge Information and Storage Management system and method. The invention provides a system for storing information, including a plurality of sources of information, at least one receiver of information from the plurality of sources, a universal data store and an interface coupling the receiver and the universal data store [Song: pg. 1, L1-3 & pg. 3, L19-29]. As part of his invention, Song discloses a COTA Portal and Agent, which functions together to form a completely new and extremely productive user interface, and helps users to have more immediate access to their information (Song: COTA Portal and Agent) [pg. 133, Par. 2 & 3]. Specifically, Song discloses the additional recited feature of the method further comprising "automatically providing search results to said user *in real-time* during the communication (Song: e.g., email communication from 'GM Purchasing Agent' to 'Bill') [pg. 82] (e.g., "an email from a GM Purchasing Agent requesting a proposal of 'Widgets' would alert COTA Agent in the following ways: 1) the sender is a client of the receiver; 2) a 'Key Word search' of the title and text indicates that the content refers to '*Widgets and Proposals*'; 3) a cross reference of the receiver's COTA File Folder and Document Titles reveals an exact Folder Title 'match': *Clients-GM-Widget Project-Proposals*; 4) a secondary scan of the actual document's body content reveals a close match between the incoming document and other documents in the receiver's *GM Widget Projects – Proposals* folder...6) before the user is done



reading the first sentence of the email, COTA Agent offers several optional storage locations of the users consideration.”) [pg. 143, Par. 7].

It would thus be obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Bode, Beck and Anthony, with the above said additional recited feature, as disclosed by Song, for the motivation of providing a method and system of a universal store to increase personal and professional productivity and quality of life [Song: pg.3, L14-19].

Claims 58-61, 63, 82-85 and 87 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bode in view of Beck in view of of Anthony and in further view of Hull and Fratkina et al (hereinafter Fratkina), U.S. Patent Publication US 2001/0049688 A1.

As per claims 58 and 82, while the combination of Bode, Beck, Anthony and Hull discloses substantial features of the invention, as above, the combination does not explicitly disclose the additionally recited feature of the method “wherein information relevant to the context or one or more key topics of the communication comprises one or more knowledge reports by experts, documents, or other resources associated with a context or one or more key topics of the communication”. Nonetheless, the said feature is expressly disclosed by Fratkina.

Fratkina, which is “incorporated by reference” by Bode and in a related endeavor, discloses as his invention a method and system for retrieving information through the use of a multi-stage interaction with a client to identify particular knowledge content associated with a knowledge map. Specifically, Fratkina discloses the above said feature of the method “wherein information relevant to the context or one or more key topics of the communication comprises one or more knowledge reports by experts, documents, or other resources associated with a context or one or more key topics of the communication” [Fratkina: col 15, L6-35] [col 5, L7 – col 6, L5] (e.g., Topic Spotter) [col 6, L25-58].

It would thus be obvious to one of ordinary skill in the art at the time of the invention to modify the combination with the above said feature, as disclosed by Fratkina, for the motivation of providing a multi-step conversation-like interaction between a person and a computer or other device to refine and satisfy the person’s request for information [0005].

As per claims 59 and 83, while the combination of Bode, Beck, Anthony and Hull discloses substantial features of the invention, as above, the combination does not explicitly disclose the additionally recited feature of the method wherein providing search results to said user comprises providing full text or a brief synopsis of each search result. Nonetheless the said feature is expressly disclosed by Fratkina.

Fratkina, which is “incorporated by reference” by Bode and in a related endeavor, discloses as his invention a method and system for retrieving information through the

use of a multi-stage interaction with a client to identify particular knowledge content associated with a knowledge map. Specifically, Fratkina discloses the above said feature of the method wherein providing search results to said user comprises providing full text or a brief synopsis of each search result (Fratkina: e.g., Search Results R1-R3) [Fig. 4] [col 7, L48 – col 8, L28].

It would thus be obvious to one of ordinary skill in the art at the time of the invention to modify the combination with the above said feature, as disclosed by Fratkina, for the motivation of providing a multi-step conversation-like interaction between a person and a computer or other device to refine and satisfy the person's request for information [Fratkina: 0005].

As per claims 60 and 84, while the combination of Bode, Beck, Anthony and Song discloses substantial features of the invention, as above, the combination does not explicitly disclose the additionally recited feature of the method further comprising providing the user with the one or more topic words that were searched. Nonetheless, the said feature is expressly disclosed by Fratkina.

Fratkina, which is "incorporated by reference" by Bode and in a related endeavor, discloses as his invention a method and system for retrieving information through the use of a multi-stage interaction with a client to identify particular knowledge content associated with a knowledge map. Specifically, Fratkina discloses the above said

feature of the method discloses the method further comprising providing the user with the one or more topic words that were searched [Fratkina: Table 3] [col 11, L50-67].

It would thus be obvious to one of ordinary skill in the art at the time of the invention to modify the combination with the above said feature, as disclosed by Fratkina, for the motivation of providing a multi-step conversation-like interaction between a person and a computer or other device to refine and satisfy the person's request for information [Fratkina: 0005].

As per claims 61 and 85, while the combination of Bode, Beck, Anthony and Hull discloses substantial features of the invention, as above, the combination does not explicitly disclose the additionally recited feature of the method wherein providing search results comprises one or more of sending the search results in an electronic mail message; presenting the search results on a designated intranet or Internet site; displaying the search results in a pop-up window on a display device; or presenting the search results to at least one other individual. Nonetheless, the said features are expressly disclosed by Fratkina.

Fratkina, which is "incorporated by reference" by Bode and in a related endeavor, discloses as his invention a method and system for retrieving information through the use of a multi-stage interaction with a client to identify particular knowledge content associated with a knowledge map. Specifically, Fratkina discloses the above said feature of the method wherein providing search results comprises one or more of:

sending the search results in an electronic mail message; presenting the search results on a designated intranet or Internet site; displaying the search results in a pop-up window on a display device; or presenting the search results to at least one other individual (Fratkina: e.g., CRM sends a reply email to user 105) [col 6, L35-67].

It would thus be obvious to one of ordinary skill in the art at the time of the invention to modify the combination with the above said feature, as disclosed by Fratkina, for the motivation of providing a multi-step conversation-like interaction between a person and a computer or other device to refine and satisfy the person's request for information [Fratkina: 0005].

As per claims 63 and 87, while the combination of Bode, Beck, Anthony and Hull discloses substantial features of the invention, as above, the combination does not explicitly disclose the additionally recited feature of the method wherein determining the one or more topic words comprises filtering by activity context, user context, taxonomy-parent or synonym word look-up, involved-participant context, or topical urgency context. Nonetheless, the said feature is expressly disclosed by Fratkina.

Fratkina, which is "incorporated by reference" by Bode and in a related endeavor, discloses as his invention a method and system for retrieving information through the use of a multi-stage interaction with a client to identify particular knowledge content associated with a knowledge map. Specifically, Fratkina discloses the above said feature of the method wherein the filtering comprises filtering by activity context, user

context, taxonomy-parent or synonym word look-up, involved-participant context, or topical urgency context (Fratkina: e.g., filter taxonomies) [col 5, L10] [Tables 1-3].

It would thus be obvious to one of ordinary skill in the art at the time of the invention to modify the combination with the above said feature, as disclosed by Fratkina, for the motivation of providing a multi-step conversation-like interaction between a person and a computer or other device to refine and satisfy the person's request for information [Fratkina: 0005].

Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bode in view of Beck in view of Anthony and in further view of Hull and Teng et al (hereinafter Teng), U.S. Patent 6,976,018.

As per claim 32, while the combination of Bode, Beck, Anthony and Hull discloses substantial features of the invention such as a system for monitoring a communication and retrieving information relevant to the communication [Abstract], the combination does not explicitly disclose the additional feature of the system wherein the network comprises at least one of the Internet, an intranet or a virtual private network. Nonetheless, the said feature is expressly disclosed by Teng.

Teng, in a related endeavor, discloses as his invention a method that queries a plurality of search engines for properties to identify for which content categories the search engines are suited. A query to locate content is communicated to those of the

plurality of search engines suited to service the query to locate content, based on at least one content category of the query to locate content [Abstract] [Figs. 1-3]. In particular, Teng discloses the added feature of the system wherein the network comprises at least one of the Internet, an intranet or a virtual private network (Teng: e.g., internet) [col 1, L15].

It would thus be obvious to one of ordinary skill in the art at the time of the invention to modify the combination with the above additional feature of the system wherein the network comprises at least one of an intranet or a virtual private network, as disclosed by Teng, for the motivation of providing search options that enables the selection of the best available search technology for a particular search query, as well as providing for flexibility [Teng: col 1, L35-42].

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bode in view of Beck in view of Anthony and in further view of Hull and Burdick et al (hereinafter Burdick), U.S. Patent 7,185,001.

As per claim 33, while the combination of Bode, Beck, Anthony and Song discloses substantial features of the invention such as a system for monitoring a communication and retrieving information relevant to the communication [Abstract], as above, the combination does not explicitly disclose the added feature of the system wherein the communications link comprises at least one of a digital subscriber line (DSL)

connection, a digital data services (DDS) connection, an Ethernet connection, an integrated services digital network (ISDN) line, or an analog modem connection.

Nonetheless, the said feature is expressly disclosed by Burdick.

Burdick, in a related endeavor, discloses as his invention an interactive document search, retrieval, categorization, and summarization method and system [Abstract] [Fig. 1]. The invention retrieves relevant documents from a computer network in response to a user's query and organizing the retrieved document into categories [col 1, L10-17]. In particular, Burdick discloses the added feature of the system wherein the communications link comprises at least one of a digital subscriber line (DSL) connection, a digital data services (DDS) connection, an Ethernet connection, an integrated services digital network (ISDN) line, or an analog modem connection [col 6, L30-44] [Fig. 1].

It would thus be obvious to one of ordinary skill in the art at the time of the invention to modify the combination with the above additional feature, as disclosed by Burdick, for the motivation of providing a system and method for interactively searching, retrieving, categorizing, and summarizing documents, and for minimizing the opening, closing, and reading of documents [Burdick: col 2, L24-29].

Claims 50, 51, 75 and 76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bode in view of Beck in view of Anthony and in further view of Hull and Obviousness.



As per claims 50 and 51, Bode in view Beck in view of Anthony and in further view of Song and Official Notice discloses the system of claim 48, further comprising a user associated with the remote client specifies the frequency.

With regards to the claims, the Office asserts that the specification of a frequency by a user associated with a remote client and/or designation of a default frequency by an information module of the system would be obvious to one of ordinary skill in the art for applying an algorithm (e.g., term-extraction algorithm with weighted tags 202) [Fig. 12] [col 2, L47-49] to the module of the system at a particular rate and as part of the design in the monitoring of communication for searching and retrieving documents and other content using search engines and a knowledge database (knowledge containers 201 / 202) [Fig. 2].

As support for the assertion of obviousness in view of what is known in the art, the Office additionally remarks that, upon a closer examination of the full teachings by Bode, the feature of the system wherein a user specifies a frequency or wherein a default frequency is designated is actually expressly disclosed by the Bode prior art reference (e.g. Algorithmic implementation for searching a specified/selected n-dimensional search matrix) [col 15, L46 – col 16, L37] [Fig. 8] or, alternatively, the Burdick prior art reference (e.g., iterative reclustering / recategorization or Search refinement) [col 9, L33 – col 10, L50] [Fig. 1].

Claims 75 and 76 recite similar limitations as claims 50 and 51 respectively, and are accordingly rejected on the same basis.

Claims 62, 64, 86 and 88, are rejected under 35 U.S.C. 103(a) as being unpatentable over Bode in view of Beck in view of Anthony and in further view of Hull and Liddy et al (hereinafter Liddy), U.S. Patent 5,873,056.

As per claims 62, 64, 86 and 88, while the combination of Bode, Beck, Anthony and Hull discloses substantial features of the invention such as the system for monitoring a communication and retrieving information relevant to the communication, as above, the combination does not explicitly disclose the added feature of the method wherein determining the one or more topic words comprises generating a topic vector comprising a list of several potential matches for a word, and refining the topic vector by comparing the topic vector with other topic vectors for a predetermined time interval or number of characters to determine if they share a similar context or one or more key topics. Nonetheless, the said feature is expressly disclosed by Liddy in a related endeavor.

Liddy discloses as his invention a natural language processing system that uses unformatted naturally occurring text and generates a subject vector representation of the text, which may be the entire document or a part thereof such as its title, a paragraph, a clause, or a sentence therein [Liddy: Abstract]. In particular, Liddy discloses the added feature of generating a topic vector comprising a list of several potential matches for a word (e.g., subject code vector), and refining the topic vector by comparing the topic vector with other topic vectors for a predetermined time interval or

number of characters to determine if they share a similar context or one or more key topics [Liddy: Abstract] [Figure 1] [col 6, L30-44] [Figs. 1-4 & 10-11].

It would thus be obvious to one of ordinary skill in the art at the time of the invention to modify the combination with the above additional feature of the system, as disclosed by Liddy, for the motivation of providing a system for natural language processing which accounts for lexical ambiguity and for automatic classification and retrieval of documents by their general subject content with statistically guided word sense disambiguation [Liddy: col 1, L5-10].

#### **(10) Response to Argument**

##### Claims 29 and 65

With regards to the rejection of the claims, Applicant firstly argues that none of the prior art references applied in the rejection of the claims, either individually or in combination, teach or disclose particular recited features of the claims, which recite in part:

automatically determining from [a] monitored communication [between a user associated with a remote client and at least one other individual], in real-time, one or more topic words associated with the monitored communication; and

automatically searching [] at least one data source in real-time during the communication for the one or more topic words appearing in the monitored communication to generate search results for documents relevant to the context or the one or more key topics of the communication.

In this regard, Applicant remarks that none of the combination of Bode, Beck, Anthony and/or Hull prior art references teach or disclose the above features because Bode and Beck do not properly disclose the argued features, and Anthony nor Hull cures the deficiencies of Bode and Beck. In support of his arguments, Applicant particularly remarks that Anthony and/or Hull, like Bode or Beck, fails to disclose "automatically determining topic names associated with a communication between two (human) individuals, or automatically searching for the topic names in the communication to generate search results for relevant documents." The Office respectfully disagrees and submits that Applicant has misinterpreted and/or not fully considered all of the teachings and disclosures of the applied prior art reference(s). The Office also remarks that the argued claim features are properly and sufficiently disclosed by the one or more applied prior art references in accordance with the requirements of the current claim recitation and/or language.

In response to the argument, the Office firstly remarks that while Bode and/or Beck broadly and expressly disclose a system and method for "searching for relevant documents in a document corpus or database" based on a text or voice communication

provided by a user (e.g., a 'user query' communication / dialog session, such as an email communication or telephone call), and wherein the user query / communication session may be between an 'automated Customer Relationship Management (CRM) system, or a 'Human Application / Knowledge engineer' or 'human customer service personnel' (i.e. during disclosed 'human customer service interactions') [Bode: Abstract] [col 1, L25-40] col 1, L61 – col 2, L2] [col 2, L20-25] [Fig. 4] [col 2, L47-49] [Fig.12] [col 5, L7-34] [col 6, L25 – col7, L30] [Table 4] or 'Live Agents / Service Persons' [Beck: Abstract] [col 3, L31-36] [col 4, L32-40] [col 5, L28-37] [col 6, L11-48] [col 10, L17-40] [col 13, L42 – col 14, L18 & 45-55]; Anthony, alternatively, and explicitly / specifically teaches or discloses the features of 'automatically determining topic names associated with a communication between the two human individuals, or automatically searching for topic names in the communication to generate search results for relevant documents".

Bode discloses an automated customer relationship management system (CRM), wherein a user who is typically a customer of a product or service may have a specific question about a problem or other aspect of the product or service, and based on a query request from a user, the CRM system is able to find appropriate technical instructions or other documentation to answer the question or solve the user's problem [col 1, L25-30].

However, Bode also expressly teaches and discloses that the same technical instructions or documentation to answer or resolve a user's question / query may also be alternatively obtained or achieved by direct communication with 'human experts' like "human applications engineers" and other "customer service personnel" via a telephone call or 'email inquiry' – albeit possibly more expensive compared to using the CRM system because of the investment cost in training the customer service personnel, for example [col 1, L30-40]. In fact, Bode expressly teaches that "in a CRM application, the user may be forced to place a telephone call to an applications engineer or other customer service personnel" [col 1, L61-64] and that in other circumstances a user could be linked to a 'human information provider' or expert via email, internet-based telephone or video-conferencing or by direct-dial telephone to initiate a 'dialog', which may be handled by the CRM system or may be 'escalated' to a 'human dialog' with an expert [col 5, L29-35] [col 6, L52 – col 7, L22]. Bode thus broadly discloses monitoring of a communication between a user and the CRM application and/or a communication between a user and another human individual, as recited by the claims. However, in Bode the search results for providing relevant documents is a result of "searching for text in content data or metadata using textual and/or other input(s) obtained from a user [col 1, L65 – col 2, L2 & L20-25].

Beck discloses as his invention a method and apparatus for providing media-independent self-help modules within a multimedia communication center {MMCC} customer interface. In the MMCC, a client specific self-help wizard is provided for active

clients and updated periodically with information related to client transaction history with the MMCC, and wherein client activity may be monitored by a wizard [Abstract] [col 5, L39-65]. Similar to Bode, Beck also expressly teaches as well known that in certain systems such as a Cynos system, "customer access points are controlled in a fashion that general telephony, ordering options, media options, and the like are made available for connection to 'live attendants' (e.g., knowledge experts / customer service persons) as well as to 'automated systems' (e.g., IVR systems or other automated systems) for the purpose of effecting business routines with the enterprise [col 5, L27-38].

Accordingly, Beck provides an apparatus wherein customers may be empowered to make informed decisions "without necessarily committing to a live agent" [col 4, L32-40] but may also be allowed interact directly with a 'live agent or person' as an 'option' [col 10, L20-40] [col 14, L6-18] [Fig. 3] (e.g., interaction routing 93 allows a user to be routed to "agents, service persons, knowledge workers, business partners, customers, etc" and/or in some instances "may be routed to machines" (e.g., IVR systems) for response [col 13, L43-67]. Additionally, Beck expressly teaches and discloses monitoring of said 'interactions' using interaction monitor module 331 of his invention [col 47, L28-33] (e.g. monitoring customer-to-customer, customer-to-agent, vendor-to-vendor interactions, via interaction monitor 331) [Fig. 16].

Further, the Office additionally notes with emphasis that with respect to the disclosures Angel et al, U.S. Patent Publication 09/911,841, the teachings and disclosures of which are expressly "incorporated by reference" by Bode, Angel

expressly illustrates one embodiment of the invention comprising a live dialog / interaction between a user 105 and another 'human individual' / Knowledge Engineer or Expert' 235 [Fig. 2], and the feature of "monitoring a communication between two human individuals" and determining topics of possible interest to a user is thus expressly disclosed by Bode (with respect to Angel). Bode also explicitly discloses as part of his invention a "topic spotter" which directs a user 105 to the most appropriate one of many possible dialogs, and which also "parses the text of a user's email and which selects an entry point for a user-provider dialog from among several possible dialogs or entry points" [Bode: col 6, L35 – col 7, L3]

Accordingly, both Beck and Bode at least disclose monitoring of a 'live' or real-time communication between a user and an automated system and/or communication between a user and at least one other human individual (via email communications / dialog), for providing information relevant to a user interaction or dialog, as required by the claims.

With respect to Anthony, Applicant argues that Anthony also does not disclose or teach the aforementioned "automatically determining topic names associated with a communication" or "automatically searching for the topic names in the communication to generate search results" because Anthony generally appears to relate to searching for 'predefined' topic names in the text of a record (stored in a database) and associating 'matching' topic name(s) with related database records. The Office respectfully disagrees.



Anthony discloses as his invention a method and system of information management, retrieval and display [Abstract] [col 2, L35 – col 3, L17]. Topic objects are stored with textual data objects containing references to other topic objects, and the textual data objects are string-correlated to the topic objects to determine which topic objects are referenced in each textual data object [Abstract]. Anthony discloses a method or system which includes “identifying a word or phrase to cross-reference, as well as all occurrences of the word or phrase in the entire text” and “marking each occurrence to show it is a cross-reference and also attach it to the result to tell the system where to navigate to” [col 1, L52-65] [col 2, L35-63]. Significantly, Anthony teaches that his invention may be implemented in a database (or ‘data source’) in which each record comprises a data portion in the form of “several pages of text relating to a particular topic” and further a field in the same record contains the unique reference in the form of a ‘topic name’ [col 2, L64 – col 3, L1]. The database may be used for ‘interrogation’ and ‘cross-referencing text’ using comparison process 200 and association process 400 in relation to the database [Figs. 3-5]. In particular, Anthony explicitly teaches that a first page of topic text selected by a user is compared 200 to other topic names in the database and then displayed. The comparison is conducted by “automatically searching for the occurrence of the topic names” in the body of text of the first page of the first topic...and finding a match 300...” [col 3, L15-20] [col 4, L53 – col 5, L3] [col 5, L65 – col 6, L65] [col 7, L17 – col 8, L7]. Thus, Anthony at the very least explicitly teaches the argued feature of “automatically determining topic names associated with a communication” or “automatically searching for the topic names in the

communication to generate search results". While Applicant argues that this is improper because Anthony employs a 'predefined' database or data source, the Office remarks in response to the argument such a feature or disclosure by Anthony is not disallowed by the current claim recitation or language. In this regard, the Office notes that there is nothing in the claim language that distinguishes Anthony's disclosed database from the 'data source' recited by the claims, since the claim recitation requires at most 'automatically searching at least one data source in real-time during the communication...". The Office thus asserts that the argued features are properly disclosed by Bode, Beck and/or Anthony, and the Office accordingly maintains its rejection of claims 29 and 65 for at least the reasons given above.

Moreover, in response to the argument with respect to Hull that Hull also does not teach the aforementioned claim features of claim 29 and 65, the Office remarks that Hull expressly and alternatively and explicitly discloses the argued feature of 'automatically searching in real-time during the communication for the one or more topic words appearing in the communication to generate search results for documents relevant to the context or the one or more key topics of the communication...". Hull discloses as his invention techniques for providing 'relevant information' to a user based on information / documents accessed or viewed by the user (accessed in the 'present' {real-time} or 'past'), and without requiring specific user input. The invention uses several techniques to determine relevancy between the contents of the documents accessed / viewed by the user and between the information provided by the content

provider systems. The relevancy information is used to 'select information' to be provided to the user [Hull: Abstract] (e.g., Info related to concepts of interest to the user \_110-a / Info related to docs viewed by user \_110-b) [Fig. 1] [Fig. 3] [col 2, L32 – col 3, L2] (e.g., "information selected and output to the user may be of various types including electronic text information, news information, advertising information, public information, audio / video information, multimedia information, images, and other types and combinations of information thereof) [col 4, L17-35]. Significantly, the Office notes that Hull explicitly teaches that "several different types of documents may be accessed by a user including documents created using word processing programs, multimedia documents, spreadsheets, Electronic Mail (email) documents, text documents, images, graphic files, etc. [col 5, L16-27] and that "server system 112 is configured to monitor information / documents accessed / viewed by the user and determine if the contents of the document viewed / accessed by the user are relevant to 'concepts' of interest to the user..." [col 6, L39 – 55] [col 7, L7-27]. Hull also explicitly teaches that "the selection of information may be performed based on an analysis of a plurality of documents or information viewed or accessed by the user "presently and in the past" [col 9, L6-10]. Hull thus also expressly discloses real-time monitoring of a communication (e.g., email communication) between two users and automatically searching for relevant documentation / information based on 'content' (i.e., text, images, graphics, etc.) found in the document being viewed by the user. The argued features are thus alternatively taught by Hull, and the Office accordingly maintains its rejection of claims 29 and 65 for at least the reasons given.

Claims 30, 35, 36, 38, 41-49, 52-56, 58-61, 63, 66-74, 77-85 and 87-91 depend from claims 29 and 65, inherit all of the features of their independent parent claim, and remain unpatentable for at least the same reasons provided for independent claims 29 and 65.

Having established that one or more of the applied prior art references in the combination expressly teaches or discloses all of the claim features argued by Applicant, the Office maintains its rejection of the pending claims and asserts that the claims stand unpatentable in view of the prior art applied in the rejection of the claims.

#### **(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

#### **(12) Conclusion**

For the above reasons, having shown that the combination of the prior art references expressly teach and/or disclose all the features of the argued independent claims and respective dependent claims, the Office firmly asserts that the rejection of the claimed invention in view of the prior art reference(s) should be sustained.

Respectfully submitted,

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